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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,109	02/20/2004	Seth A. Lieffort	59608US002 (1004-103US01)	6913

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EXAMINER	
NGUYEN, TUAN HOANG	
ART UNIT	**PAPER NUMBER**
2618	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/784,109	LIEFFORT ET AL.	
	Examiner	Art Unit	
	Tuan H. Nguyen	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 November 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 11/13/2006 with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1 and 17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Claims 1 and 17 are not properly described in the application as filed, and the specification was not contain a written description an antenna that forms an electromagnetic field exceeding a threshold level necessary for communication with RFID tags, wherein the antenna has a substantially planar form. Therefore, the amendment of the claimed raise an issue of new matter.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kunz (US PAT. 6,127,989) in view of Krebs (U.S PUB. 2004/0224135).

Consider claim 1, Kunz teaches a radio frequency identification (RFID) system comprising: an antenna (104) that forms an electromagnetic field exceeding a threshold level necessary for communication with RFID tags, wherein the antenna has a substantially planar form (see fig. 2 col. 2 lines 9-13).

Kunz does not explicitly show that a substantially-contiguous conductive shield positioned around the antenna and within a plane parallel to the antenna, wherein the conductive shield has a width that extends in the plane parallel to the antenna such that the electromagnetic field at any region beyond the conductive shield is below the threshold level.

In the same field of endeavor, Krebs teaches a substantially-contiguous conductive shield positioned around the antenna and within a plane parallel to the antenna, wherein the conductive shield has a width that extends in the plane parallel to

the antenna such that the electromagnetic field at any region beyond the conductive shield is below the threshold level (figs. 3-5 page 3 [0034] and page 4 [0035]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use, a substantially-contiguous conductive shield positioned around the antenna and within a plane parallel to the antenna, wherein the conductive shield has a width that extends in the plane parallel to the antenna such that the electromagnetic field at any region beyond the conductive shield is below the threshold level, as taught by Krebs, in order to allow the reading of desired RFID tags while preventing the reading of undesired RFID tags (see Krebs abstract and page 1 [0008]).

Consider claim 17, Kunz teaches a method comprising: providing an antenna that forms an electromagnetic field exceeding a threshold level necessary for communication with RFID tags, wherein the antenna has a substantially planar form (see fig. 2 col. 2 lines 9-13).

Kunz does not explicitly show that selecting a width of a substantially-contiguous conductive shield such that when the conductive shield is positioned around the antenna and within a plane parallel to the antenna, the electromagnetic field at any region beyond the conductive shield is below the threshold level; and positioning the substantially-contiguous conductive shield having the selected width around the antenna.

In the same field of endeavor, Krebs teaches selecting a width of a substantially-contiguous conductive shield such that when the conductive shield is positioned around the antenna and within a plane parallel to the antenna, the electromagnetic field at any region beyond the conductive shield is below the threshold level (figs. 3-5 page 3 [0034] and page 4 [0035]); and positioning the substantially-contiguous conductive shield having the selected width around the antenna (figs. 3-5 page 3 [0034] and page 4 [0035]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use, selecting a width of a substantially-contiguous conductive shield such that when the conductive shield is positioned around the antenna and within a plane parallel to the antenna, the electromagnetic field at any region beyond the conductive shield is below the threshold level; and positioning the substantially-contiguous conductive shield having the selected width around the antenna, as taught by Krebs, in order to provide an RFID reader system for reading tags as they pass near the reader's antenna.

Consider claims 2 and 18, Krebs further teaches the width of the conductive shield within the plane parallel to the antenna shapes the electromagnetic field to extend substantially in a direction perpendicular to the antenna, and prevents the electromagnetic field from forming substantially over the conductive shield (figs. 3-5 page 3 [0034] and page 4 [0035]).

Consider claims 3 and 19, kunz further teaches the conductive shield comprises planar conductive regions oriented to form a non-shielded inner region, and further wherein the antenna is disposed within the non-shielded inner region and parallel to the planar conductive regions (see fig. 2 col. 2 lines 9-20).

Consider claim 4, kunz further teaches the conductive regions define at least one disconnect area that prevents the conductive shield from forming a closed conductive loop around the antenna (col. 1 lines 28-34).

Consider claim 5, kunz further teaches the antenna comprises one or more conductive loops including an outer loop, and the conductive regions of the conductive shield are located at least a distance D from an outer loop of the antenna that is selected based on a radius of the outer loop (see fig. 2 col. 1 lines 49-57).

Consider claim 6, kunz further teaches the antenna has a first conductive loop having a radius D1 and a concentric second conductive loop having a radius D2, and the conductive regions of the conductive shield are located at least a distance D3 from the outer loop, and wherein D3 is selected as approximately the average of D1 and D2 (see fig. 2 col. 2 lines 9-13).

Consider claim 7, Krebs further teaches each of the conductive regions have respective widths extending outward from the antenna, and further wherein the widths

are selected based at least in part on a threshold level of the magnetic field necessary for RFID communication between the antenna and the RFID tags (page 2 [0023]).

Consider claims 8 and 21, Krebs further teaches the widths are selected to extend sufficiently in directions parallel to and outward from the antenna to prevent the electromagnetic field from forming in or above the conductive regions until the strength of the magnetic field reduces to below the communication threshold (page 2 [0024]).

Consider claims 9 and 22, kunz further teaches the antenna and the conductive shield are mounted to a working surface of an RFID check-in/check-out area (see fig. 2 col. 2 lines 1-3).

Consider claims 10 and 23, kunz further teaches the working surface has a recessed area and a non-recessed area, and further wherein the antenna is mounted to the recessed area of the working surface and the conductive shield is mounted to the non-recessed area (see fig. 2 col. 2 lines 1-3).

Consider claim 11, kunz further teaches the conductive shield and the antenna are co-planar (see fig. 2 col. 2 lines 14-20).

Consider claim 12, kunz further teaches the conductive shield and the antenna are located in two different parallel planes (see fig. 2 col. 2 lines 14-20).

Consider claims 13 and 24, Krebs further teaches an RFID interrogation device coupled to the antenna, wherein the interrogation device interrogates the RFID tags to obtain information Consider associated articles; and a computing device to process the information retrieved from the RFID interrogation device (page 2 [0022]).

Consider claim 14, kunz further teaches the antenna comprises a plurality of conductive loops to produce the electromagnetic field, and wherein the conductive loops are spaced apart at least a distance D that is selected based on a dimension of the RFID tags with which the antenna communicates (see fig. 2 col. 2 lines 14-20).

Consider claim 15, kunz further teaches the distance D is selected to exceed a maximum dimension of the RFID tags (see fig. 2 col. 2 lines 14-20).

Consider claim 16, kunz further teaches the RFID tags have a dimension of length M, and the distance D between each of the plurality of conductive loops is selected such that D >/= M (see fig. 2 col. 2 lines 14-20).

Consider claim 20, Krebs further teaches selecting each of the widths of each of the conductive regions based at least in part on the threshold level of the magnetic field necessary for RFID communication between the antenna and the RFID tags (page 2 [0023]).

Consider claim 25, kunz further teaches determining a dimension M of the RFID tags for use within an RFID system; selecting a distance D based on the dimension M; and positioning a plurality of conductive loops of the antenna the selected distance D apart for communication with the RFID tag within the RFID system (see fig. 2 col. 2 lines 14-20).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any response to this action should be mailed to:

Mail Stop_____ (Explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Facsimile responses should be faxed to:

(571) 273-8300

Hand-delivered responses should be brought to:

Customer Service Window

Randolph Building

401 Dulany Street

Alexandria, VA 22313

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan H. Nguyen whose telephone number is (571)272-8329. The examiner can normally be reached on 8:00Am - 5:00Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Maung Nay A. can be reached on (571)272-7882882. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information Consider the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

T.N

Tuan Nguyen
Examiner
Art Unit 2618

NAY MAUNG
SUPERVISORY PATENT EXAMINER